

SEVERE LOCAL STORMS, JUNE, 1928

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the Annual Report of the Chief of Bureau]

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Quay, N. Mex.	1	5-6.30 p.m.			\$10,000	Heavy hail	Much damage to crops, roads, buildings, etc.	Official, U. S. Weather Bureau.
Algoma, Miss. (near)	3	Noon				Probably tornado	Some damage to buildings; 8 persons injured	Do.
Tremontina, N. Mex.	3	4 p. m.	16			Heavy hail	All crops badly injured; some livestock killed	Do.
Jean, Olney, and Jermyn, Tex.	3	8.15 p. m.			1,000,000	Wind	Heavy damage to property of every kind	Do.
Raton, N. Mex.	3	P. m.			2,400	Hail and wind	Trees, gardens, and buildings injured	Do.
Marshall and Bedford Counties, Tenn.	3				5,000	Small tornado	Character of damage not reported	Do.
Phillips County, Kans.	5	6 p. m.	3,520		100,000	Hail and wind	Severe damage to crops and buildings over path 20 miles long.	Do.
Starling, Nebr.	5	6.30 p. m.	2,640			Hail	Wheat damaged 50 to 75 per cent; path 8 miles.	Do.
Zurich, Kans. (near)	5	do.	300		800	Tornado	Damage chiefly to farm buildings and implements.	Do.
Plainville, Kans. (near)	5	7.30 p. m.	300		800	do.	do.	Do.
Barton and Rice Counties, Kans.	5	9 p. m.	13		100,000	Hail	Growing wheat totally destroyed in places; path 20 miles.	Do.
Milledgeville, Ga.	5	P. m.			25,000	Small tornado	Several buildings unroofed; trees blown down.	Do.
Luverne, Ala. (12 miles north of)	5			1	30,000	Severe thunderstorm.	Considerable property damage reported; 2 persons injured.	Do.
Nyssa, Oreg., to Weiser, Idaho.	5	P. m.				Electrical and wind.	Extensive damage to trees, buildings, orchards, crops, and telephone lines.	Do.
London, Ohio.	6					Probably tornado	No details reported	Do.
Union County, Iowa.	7	5-6 p. m.			15,000	Wind and hail	Crops injured; buildings damaged	Do.
Oklaunion and Vernon, Tex.	7	8.30-9 p. m.	1-2		175,000	Wind	Crops and buildings severely damaged; 1 person hurt.	Do.
Adair County, Iowa.	7	11.30 p. m.				Hail	Severe crop damage	Do.
Elkader to Oakley (25 miles south of), Kans.	7	P. m.			5,000	Tornado	Character of damage not reported	Do.
Benton, Keokuk, Lucas and Wayne Counties, Iowa.	7					Wind	Buildings and crops considerably damaged	Do.
Clark County, Kans. (northern).	7-8		15		1,000,000	Hail	Damage chiefly to growing wheat over path 15 miles long.	Do.
McPherson and Harvey Counties, Kans.	7-8		110		1,000,000	Wind and hail	Extensive damage to growing wheat; path 25 miles.	Do.
Fort Scott (near) to Croweburg, Kans.	8	3 a. m.			5,000	Tornado	Buildings damaged	Do.
Campo, Colo.	8	4 p. m.	1,000	2	11,000	do.	Six farm buildings destroyed; crops damaged; 6 persons injured.	Do.
Greeley, Wichita, Kearney, Gray, and Ford Counties, Kans.	8	5.30-10.30 p. m.	14-20		3,000,000	Hail	Crop loss heavy and other property damaged over path 100 miles long.	Do.
Harper and Sumner Counties, Kans.	8	10 p. m.	110		100,000	High winds	Severe property damage in Caldwell and Waldron.	Do.
Arriba, Colo.	8		1,760		5,000	Hail	Character of damage not reported	Do.
Garden City, Kans. (near)	8				1,000	Tornado	One residence demolished; farm buildings damaged.	Do.
Ontonagon County, Mich.	8					Small tornado	No details reported	Do.
Cowley County, Kans.	9	2 a. m.	880		25,000	Hail and wind	Much window glass broken; other property damaged.	Do.
Bolling Field and Hains Point, Washington, D. C.	9	4.15 p. m.	100	1	100,000	Severe thunder squall.	12 planes wrecked; hangars and other property damaged; 115 trees uprooted; 6 persons injured.	Do.
Recona, N. Mex.	9	4-5 p. m.	16			Hail	Crops badly damaged on a number of farms.	Do.
Somerset County, Md. (western).	9	10.30 p. m.			100,000	Severe thunderstorm, probably tornado.	35 buildings wrecked or damaged; trees uprooted; 10 persons injured.	Do.
Meria, Tex.	9	11 p. m.				Hail and wind	Crops and buildings severely damaged	Do.
Baltimore County, Md.	9				32,000	Wind and hail	8 houses unroofed; homes, autos, and wires damaged in Baltimore city; other damages in vicinity.	Do.
Davies County, Ind.	9				50,000	Hail	Heavy crop damage	Do.
Vestal, N. Y. (near)	9					Probably small tornado.	A barn and small outbuildings demolished; 1 house damaged.	Do.
Rotan, Tex. (near)	10	9 p. m.			15,000	Wind	Crops and buildings damaged	Do.
Lower Twist Valley, Okanogan County, Wash.	11	11 a. m.				Hail	Commercial apple crop badly damaged	Do.
Cherry County, Nebr. (western).	11	7 p. m.	100		1,500	Tornado	A number of buildings wrecked; large trees uprooted; path 35 miles.	Do.
Ludell, Kans., to McCook, Nebr.	11	7.30 p. m.	300			do.	Heavy damage in McCook; many farm buildings damaged; path 75 miles.	Do.
Oakley, Kans. (near)	11	7.30 p. m.	300		12,000	do.	Farm building damaged; path 27 miles.	Do.
Lyon and Osceola Counties, Iowa.	11					Wind	Telephones, trees, and buildings damaged	Do.
Kearney, Nebr.	12	12.30 a. m.	130		18,000	do.	2 large barns demolished; small outbuildings, trees, and telephone poles damaged.	Do.
Woods County, Okla. (northern).	12	do.	13-6		200,000	Hail and wind	Extensive crop injury; other property damage considerable.	Do.
Lyon County, Iowa.	12	3 a. m.			3,000	Tornado	Character of damage not reported	Do.
Waterloo, Nebr.	12	3-4 a. m.			12,000	Wind	A barn and several buildings wrecked	Do.
Beatrice, Nebr.	12	3.30 a. m.	160		3,000	Tornado	A number of farm buildings demolished; path 880 yards long.	Do.
Woodbury County, Iowa.	12	do.				do.	Buildings damaged; poultry killed.	Do.
Cass County, Iowa.	12	5 a. m.			2,500	do.	Character of damage not reported	Do.
Hamilton County, Iowa.	12	7 a. m.			500	do.	Minor property damage	Do.
Louisa County, Iowa.	12	do.				do.	Buildings damaged; poultry injured	Do.
Cheyenne County, Nebr. (eastern).	12	3 p. m.			12,000	do.	Number of buildings wrecked	Do.
Seward County, Kans.	12	3-4 p. m.	130		1,000,000	Hail	Growing wheat severely damaged	Do.
Grundy County, Iowa.	12	7.30 p. m.				Tornado	Buildings damaged; stock injured	Do.
Bates to Cauthron, Ark.	12		100	2	10,000	do.	Considerable property damage over path 12 miles long.	Do.
Cedar, Cherokee, Dubuque, Mitchell, Page, Pottawattamie, and Wayne Counties, Iowa.	12					Wind	Buildings, trees, crops, and overhead wires damaged; stock injured.	Do.
Hillsdale, Erie, and vicinity, Ill.	12		50-440		2,500	Tornado	Monuments blown over; silos and windmills wrecked; path 12 miles.	Do.
Moline, Rock Island, and vicinity, Ill.	12				5,000	High winds	Loss principally to telephone and electric power companies.	Do.
Wichita, Kans. (near)	12	P. m.				Tornado	Slight damage as storm passed over open country.	Do.

Severe local storms, June, 1928—Continued

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Omaha, Wash. (near).....	13	3 p. m.	880		\$75,000	Hail	Commercial apple crop badly damaged	Official, U. S. Weather Bureau.
Wild Rose, Wis.....	13	3.30 p. m.				Severe squall	Several buildings unroofed; other minor damage	Do.
Selah, Wash. (near).....	14	4-5 p. m.	1-3		300,000	Hail	About 1,500 cars of apples damaged; also cherries and gardens; path 8 miles	Do.
Pratt, Barber, and Harper Counties, Kans.	14	5-6 p. m.	16		1,400,000	do	Damage chiefly to wheat; path 70 miles	Do.
Morton, Seward, and Stevens Counties, Kans.	14	9 p. m.	110		100,000	do	Damage chiefly to wheat; path 40 miles	Do.
Hartun, Colo.	15	8-9 p. m.	18		300,000	do	Crops severely damaged	Do.
Akron, Colo. (near).....	15	11 p. m.	200		3,000	Tornado	Farm buildings destroyed; stock killed	Do.
Keota to Willard, Colo.	16	5-6 p. m.	13-6			Hail	Character of damage not reported	Do.
Rush County, Kans. (southern).	16	5.30 p. m.	16		5,000	Tornado	Some damage to property in rural districts; path 15 miles	Do.
Brookville, Kans. (near)...	16	6 p. m.	33-440		51,000	do	Homes, farm buildings, machinery damaged; livestock and poultry killed or injured; path 8 miles	Do.
Solomon, Kans. (near).....	16	do	33		3,000	do	Farm buildings demolished; path 5 miles	Do.
Greensburg to Sawyer, Kans.	16	6-8 p. m.	100-880		150,000	Tornado and hail	Overhead wires, trees and houses blown down; roofs and machinery damaged; crops beaten; 2 persons injured; path 40 miles	Official, U. S. Weather Bureau.
Alden, Kans. (near).....	16	6.30 p. m.	33		1,500	Tornado	Slight damage in rural districts; path 3 miles	Pratt Daily Tribune (Pratt, Kans.).
Falun, Kans. (near).....	16	do	16		1,000	do	Character of damage not reported	Official, U. S. Weather Bureau.
Lincoln, Colo.	16	7 p. m.			115,000	Hail	Details of damage not reported	Do.
Stafford, Kans. (near).....	16	do	880		10,000	Tornado	Considerable damage to property in rural districts; 1 person injured	Do.
Arlington, Kans.	16	7.45 p. m.			2,500	Wind	Business section of town damaged	Do.
Thurman, Colo. (near).....	16	8.30 p. m.	880		2,500	Tornado	Farm buildings wrecked; stock killed	Do.
Blair to Holliday, Okla.	16	P. m.		3		do	More than 2,000 persons made homeless; loss of farm property, crops, and livestock enormous	Do.
Boone and Crawford Counties, Iowa	16					Wind and rain	Overhead wires and trees damaged	Do.
Americus, Kans. (near).....	17	3 p. m.	200		78,000	Tornado	Farm buildings demolished; 1 person injured; path 1.5 miles	Do.
Bovina, Colo. (near).....	17	6 p. m.	15-8			Hail	Crops total loss	Do.
Chanute, Kans. (near).....	17	do	300		20,000	Tornado	Farm buildings, a church, and a schoolhouse demolished; path 12 miles	Do.
Arriba, Colo.	17	7 p. m.	17			Hail	Character of damage not reported	Do.
Grafton, Ill.	17	8.45 p. m.			20,000	Wind	Light buildings and a warehouse destroyed; several homes damaged	Do.
Arickaree, Colo.	17	10 p. m.	1,760			Hail	Crops damaged 50 to 75 per cent	Do.
Vona, Colo.	17	P. m.				3 hail storms	Crop loss about 50 per cent	Do.
Stratton, Colo.	17		16			do	Stones very large, buildings damaged; hogs killed	Do.
Wisconsin (southwestern)...	17-18					Severe thunderstorms	Some damage by lightning; basements and streets flooded	Do.
Washita County, Okla. (western).	18	4 p. m.	110		800,000	Hail	Small animals killed; stock bruised; total crop loss in much of area; other property damage; path 20 miles	Do.
Rosendale, Mo. (near).....	18	6.30 p. m.	50-130			Tornado	No damage reported	Do.
Adams County, Iowa.....	18	7.30 p. m.	14		125,000	Tornado and hail	Extensive property damage	Do.
Pattonsburg, Mo.	18	8 p. m.			150,000	Tornadoic wind	Dwellings, barns, and other structures demolished; stock injured	Do.
Union County, Iowa	18	do			10,000	Tornado	Details not reported	Do.
Franklin, Ky. (near).....	18					Wind	Houses and barns unroofed	Do.
Franklin to Washington County, Ohio	18			2	1,000,000	Tornado	Extensive property damage	Do.
Fort Branch, Ind.	18				25,000	Tornadoic wind	Considerable property damage	Do.
Johnson County, Ill. (southern).	18		110		50,000	Wind	Light buildings and houses moved from foundations; windows broken; path 15 miles; 10 injured	Do.
Kirkland, Ill.	18				50,000	Electrical	Large grain elevator burned	Do.
New Point, Mo.	18		100	1	50,000	Tornado	Buildings, household effects, etc., damaged over path 6 miles long; 2 persons injured	Do.
Grant County, Okla. (central).	19	3.30 p. m.	13		50,000	Hail	Damage chiefly to crops; path 8 miles	Do.
Wolsey, S. Dak.	19	4 p. m.			30,000	do	Crops ruined	Do.
Garretson, S. Dak.	19	5 p. m.	2,000		15,000	do	do	Do.
Grundy County, Iowa	19	6 p. m.	12		20,000	do	Crops damaged; path 3 miles	Do.
Johnson, Kans., and vicinity.	19	8.30 p. m.			5,000	Tornado	Many buildings damaged over path 7 miles long	Do.
Clinton County, Ohio	19				50,000	do	Considerable property damage reported	Do.
Richmond, Va.	19	P. m.			3,000	Thunderstorm	Number of buildings unroofed; trees uprooted	Do.
Wayne and Henry Counties, Ind.	19					Thunderstorms	Much damage to crops and other property	Do.
Crowley, Otero, and Pueblo Counties, Colo.	19-20	P. m.	12-7		2,000,000	Hail and floods	Some crops a total loss; much damage to buildings by flooding; trees uprooted; small houses wrecked	Do.
Stanton, Morton, Grant, Haskell, Seward, Meade, and Clark Counties, Kans.	19-20	11 p. m.-2 a. m.	110-30		3,000,000	Hail	One of the worst storms in history of State; wheat damaged 50 to 100 per cent; path 140 miles	Do.
Harper County, Okla. (northern).	20	12.05 a. m.			850,000	Heavy hail	Severe crop loss; other property damage considerable	Do.
Woods County, Okla.	20	do	15		78,000	do	Crops devastated; path 40 miles	Do.
Pierce County, Wis. (Big River Valley).	20	1.30-2 p. m.	4		35,000	Tornado and hail	Farm buildings and crops damaged; stock injured; path 4 miles	Do.
Trempealeau County, Wis. (central).	20	5 p. m.	15		10,000	Hail	Damage chiefly to growing corn and tobacco	Do.
Ness and Pawnee Counties, Kans.	20	5-6 p. m.	11-12		200,000	do	Damage chiefly to growing wheat; path 65 miles	Do.
Kenton through Boise City, Okla., into Texas	20	7.25-7.43 p. m.	12-7		510,000	Heavy hail	Crops devastated; other property damaged; path, 40 miles	Do.
Elm Island, Nebr.	20	7.30 p. m.	1,320			Hail	Crops damaged; many gardens ruined	Do.
Ravenna, Nebr.	20	9-10 p. m.	1,760		10,000	do	Crops damaged about 30 per cent; path 3 miles	Do.
Clay County, Nebr. (southern).	20	11.30 p. m.	14		360,000	Hail and wind	Crops a total loss in places; 50 to 75 per cent in others; path 25 miles long	Do.
Lyman, Nebr.	21	2.30 p. m.			15,000	Hail	Crops considerably damaged	Do.
Garden County, Nebr.	21	5 p. m.	18		150,000	Heavy hail	Damage to crops from slight injury to total loss over path 15 miles long	Do.
Piqua, Ohio	21	P. m.				Tornado	No details reported	Do.
Des Moines, Iowa, and vicinity.	21					Wind and hail	Buildings and crops damaged	Do.
Washington County, Iowa.	22	10.30 a. m.			2,000	Tornado	Minor property damage	Do.

1 Miles.

Severe local storms, June, 1928—Continued

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Sherman County, Kans. (southern).	22	2 p. m.	1-2		100,000	Hail	Chief damage to wheat; path 15 miles.	Official, U. S. Weather Bureau.
Lyman, Nebr.	22	4 p. m.			15,000	do	Crops damaged.	Do.
Spokane (near) and Sumner, Wash.	22	P. m.				do	Severe damage to commercial orchards and raspberry fields.	Do.
Garnett, Kans.	22					Tornado	No details reported.	Do.
Van Zandt County, Tex.	23	12.30 a. m.	16		105,000	Wind and hail	Extensive damage to crops and buildings over path 30 miles long.	Do.
Pawnee County, Nebr. (southwestern).	23	3 a. m.			25,000	Hail	Much crop damage in places.	Do.
Gotebo, Okla.	23	5 a. m.	15		65,000	do	Practically all buildings damaged to some extent; crops loss heavy.	Do.
Gove County, Kans. (southwestern).	23	Near noon.	14			Tornado	Minor damage.	Do.
Nucholls County, Nebr. (central and southwestern).	23	1 p. m.	18		300,000	Hail and rain	Heavy crop damage; livestock injured, windows broken; path 8 miles.	Do.
Republic and Cloud Counties, Kans.	23	2-3 p. m.	13-6		275,000	Heavy hail	Greatest loss to wheat; path 43 miles.	Do.
Cedar (northeast) and Dixon (northwest) Counties, Nebr.	23	3 p. m.			10,000	Tornado	Farm buildings wrecked; 1 person injured; path 7 miles.	Do.
Kettle Falls, Wash.	23	do.			10,000	Hail	Apple crops, gardens and windows damaged.	Do.
Colfax County, Nebr.	23	4-5 p. m.	12		20,000	do	Crops damaged; windows broken; path 12 miles.	Do.
Webster County, Nebr. (northern).	23	5-6 p. m.	12		25,000	do	Crops damaged 50 per cent in places; path 15 miles.	Do.
Arlington, Kans.	23	7 p. m.	8-440			Tornado	Property damage comparatively small.	Do.
Clovis, N. Mex.	23	P. m.				Heavy hail	Heavy damage to wheat, buildings, etc.	Do.
Webb City, Okla.	24	2.30 a. m.			31,000	do	Crops damaged.	Do.
Tremontina, N. Mex.	24	3 p. m.				Hail	Crops considerably beaten.	Do.
Hartun and Dailey, Colo.	25	2.30 p. m.	16		400,000	do	Severe property damage over 30-mile path.	Do.
Carnegie, Okla.	25	4.30 p. m.			25,000	do	Crops damaged.	Do.
Newville and Blosserville, Pa.	25					Wind	Several buildings damaged or destroyed; trees uprooted; crops beaten.	Do.
Midwest, Wyo.	26	4.15 p. m.	150		360,000	Tornado	Many buildings and derricks wrecked; crops injured; 8 persons hurt.	Do.
Shawnee, Wyo.	26	5 p. m.	19		5,000	Wind and hail	Buildings and crops damaged.	Do.
Jefferson County, Nebr. (western).	26	6.30-7 p. m.	1,760		6,000	Hail	Wheat and oats damaged 20 to 80 per cent in places; path 8 miles.	Do.
Torrington, Wyo.	26	6.30 p. m.	14		17,000	Wind and hail	Crops and buildings damaged.	Do.
Friona, Tex.	26	10 p. m.	18		75,000	Hail	do.	Do.
Wichita Falls, Tex. (near)	27	2 a. m.	880	1	5,000	Hail and wind	Farm property damaged; 2 persons injured.	Do.
Wessington, S. Dak.	27	P. m.	30		500	Tornado	Small damage to farm property.	Do.
Keokuk County, Iowa.	28	1.30 p. m.			7,500	do	Details not reported.	Do.
Lucas County, Iowa.	28	4 p. m.			3,000	do	do.	Do.
Limon, Colo.	28	7.15 p. m.	12		25,000	Hail	do.	Do.
Bumpus Mills, Rutherford, Md., and Southside, Tenn.	28	P. m.			40,000	Tornadoic winds	Much property damage reported; 19 persons injured.	Do.
Des Moines County, Iowa.	28				30,000	Wind, hail and flood.	Considerable property damage.	Do.
Nashville, Tenn. (near)	29	1 a. m.		1	50,000	2 tornadoic wind-storms.	A number of buildings damaged or totally wrecked; many trees uprooted; telephone service crippled.	Do.
Alexandria, Tenn.	29	2 a. m.			100,000	Tornadoic wind	Extensive property and crop damage.	Do.
Johnstown, Colo. (near)	29	12.30 p. m.	500	3	250,000	Tornado	Farm buildings and equipment wrecked; livestock killed; crops ruined; 50 persons injured.	Do.
Gillette, Wyo. (near)	29	1.45 p. m.	67		2,000	do	Buildings and crops damaged; livestock injured.	Do.
Easley, S. C.	29	9.30 p. m.	200		60,000	do	25 or 30 houses damaged; 2 persons injured.	Do.
El Paso, Elbert, and Lincoln Counties, Colo.	29	P. m.				Hail and rain	Severe crop loss; soil badly washed in places.	Do.
Spartanburg County, S. C.	29	do.	200		150,000	Wind and rain	Dwellings, outhouses, crops, and trees badly damaged.	Do.
Riverton, Wyo.	29				5,800	Hail	Crops damaged over small area.	Do.

1 Miles.

RIVERS AND FLOODS

By H. C. FRANKENFIELD

In general, June was a month of unusually heavy rainfall east of the 100th meridian, and as a result floods of some kind occurred over all that section of the country except New England and the Middle Atlantic States. As a rule the floods were of moderate character, and only in the Grand River of Missouri, the White and Black Rivers of Missouri and Arkansas, and the lower Neosho and Verdigris Rivers of Kansas and Oklahoma did they attain more than fair proportions. However, the aggregate damage was much greater than would be supposed at first thought—both on account of the large acreage of crop lands overflowed and of the numerous washouts and overflows of quite small streams.

Atlantic drainage.—Only local floods in the lower Santee River of South Carolina during the first decade of the month, and in the Broad River of the same State on the last day. Previous high waters had left the swamp floors in a very soggy condition and consequently there was little or no movement of livestock and therefore no losses.

East Gulf drainage.—During June 3, 4, and 5, rainfall over the Tallapoosa, Cahaba, and Alabama River drainage areas ranged from 2.75 to 9.50 inches, Montgomery, Ala., reporting 7.34 and Selma, Ala., 6.10 inches during the 24 hours ending 8 a. m. June 5. Warnings were first sent during the afternoon of June 4 for the Tallapoosa River and on the following morning for the Cahaba and Alabama Rivers. Owing to the frequent manipulation of the gates of the various power plant dams above, accurate forecasts for the Alabama River were not possible until the morning of June 6. Flood stages were not reached on the Coosa River. Losses and damage reported were as follows:

Miscellaneous	\$66,450
Crops, matured	11,400
Crops, prospective (19,420 acres)	154,150
Livestock, etc.	2,400
Suspension of business	19,025
Total	253,425

Money value of property saved through Weather Bureau flood warnings, \$89,100.

The excessive rains also covered the drainage basin of the lower Tombigbee River of Alabama, and rather severe